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Please replace the paragraph at page 34, lines ~~8~~ 6-~~16~~ 13, with the following rewritten paragraph:

(where [[v]] $\underline{v_e}$ is the signal velocity and d is the distance between sensor j and sensor j')

with the representative value included in set G_k indicating the variables SG_k extracted from temporary memory unit 90, and associates the representative value a_i closest to θ_q with the q-th separated signal Y_{kq} (Step S12). In other words, permutation/scaling resolution unit 62-k applies tags Π_{kq} to the separated signals Y_{kq} representing the representative values a_i (thereby associating them with these representative values).

Please replace the paragraph at page 37, line 18 to page 38, line 3, with the following rewritten paragraph:

[0064] Also, in this embodiment, in situations where N ($N \geq 2$) signals are mixed together and observed with M sensors, a smooth-profile mask is used to separate and extract the signals. Unlike the masks used in [Conventional method 2] (a binary mask with a value of 0 or 1), a mask with this smooth profile has a profile that extends smoothly at the edges. Consequently, if this smooth-profile mask is used, then even if there are two or more observed signals at the same frequency at a certain timing and the sample <u>relative</u> values are separated from the representative values $a_1,...,a_N$ that the sample ought to correspond to, the mask for this position may have a nonzero value, and thus it is possible to extract more signals than with a binary mask whose value changes abruptly. As a result, it is possible to suppress quality degradation resulting from zero components being padded discontinuously into the separated signals.